EGEE AA Cluster

Work Plan

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Outline

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Goals

- **Establish and consolidate a well motivated astronomical community that make use of the Grid technology. This objective can be achieved by making astronomers aware of the potentiality that the Grid could offer for their everyday work by**
  - Offering a rich variety of hardware/software resources
  - Opening new opportunities to foster and strengthen scientific collaborations
- **Demonstrate that the Grid is more and more helpful when different Grid infrastructures interoperate and different VOs support each other**
  - … and this scenario could become a reality through the EGEE project now and in the future through EGI
- **… and therefore establish and consolidate a well motivated astronomical community in EGEE**

Services

- A rich suite of services is of crucial importance to make the Grid attractive for our users
- Services can be of different nature
- Whenever possible the AA cluster exploits services made available within EGEE NA4

Services/Documentation

- **Documentation: build a documentation repository**
  - The repository is built by
    - Collecting and/or addressing users to documentation repositories built by third party within and outside the EGEE project
    - Collecting an AA specific repository
  - This documentation may concern:
    - General documentation for beginners who approach the Grid for the first time
    - General documentation illustrating techniques and best practices to take into account when porting applications in Grid
    - AA specific documentation taking into account possible peculiarities of astrophysical applications

Services/HW and SW Resources

- **An adequate suite of hardware and software resources is very important to attract new users**
  - Hardware: individuals and research groups will be encouraged to share their home resources within the generic AA cluster VO at a first stage and then make them available to other communities
  - Software: the software that we plan to make available may be classified as follows:
    - Suite of scripts and procedures that help people in the process of preparing their applications to be run in Grid (e.g. application configuration scripts for different classes of applications)
    - Portal(s): From our experience the use of portals greatly help in overcoming the psychological barriers with respect to the Grid
    - Grid M/W extensions to make the Grid able to fully meet the AA requirements (e.g. Databases and remote instrumentation)
    - Selection of AA applications as good demonstrators for dissemination purposes
    - HPC, VObs, DBs, Remote Control

Services/Training & Dissemination

- **AA applications often dramatically improve their performances when submitted to a gridification process, but many astronomers don't know how to carry out this task. Within the AA cluster training and dissemination activities are very important**
- **→ Education is one of the key aspects for the success of the EGEE-III project**
- **Documentation could help but training events certainly speed up the process**
  - We will encourage our users to attend training activities organized within EGEE NA4
  - Whenever possible we will organize training events taking advantage of the support given by NA4
  - Dissemination of results is very important and achieved first of all through documentation repositories
- **AA users need to be made aware about the real advantages in using the Grid for their work. Often they don't see reasons to leave local clusters and use the Grid**

Clients

- **We can distinguish our clients (users) in three main categories:**
  - Grid site maintainers
    - These users need to access documentation related to techniques and best practices to set up and maintain a Grid site. They also get benefit from training activities
  - Users who use the Grid to run third party applications only
    - They are mainly interested in getting information on hardware and software resources for their applications (documentation) and on training events to learn how to use the grid, if possible with the assistance of some grid portal
  - Application developers
    - Application developers can be greatly helped through training activities and by means of good demonstrators that show practically a typical gridification process

Subtasks 1/2

- **Subtasks that is possible to identify within AA are:**
  - Documentation. Collection of useful documentation from different sources (especially from NA4)and possibly set up of a documentation repository oriented to AA
  - Hardware. Fostering the sharing of new resources within the AA VO by different AA Institutions and groups of users around Europe that join the AA cluster
  - Software. The software subtask may be in turn subdivided in:
    - Development of scripts and procedures to make easier the porting of applications in Grid. Selection of portal(s) suitable to be used for AA applications
    - Development of tools and software services that extend the Grid M/W and therefore the suite of functionalities offered by the Grid
    - Census of gridified AA applications to select good AA demonstrators to be used for training and dissemination purposes
    - Selection of tools developed within EGEE and useful for AA

Subtasks 2/2

- **Subtasks that is possible to identify within AA are:**
  - Training and dissemination. The subtask aims at:
    - Keep in tight contact with EGEE NA4 that offers training services for all disciplinary clusters
    - Try to understand the needs of the AA community
    - Organize training events jointly with NA4 or ad hoc AA events with the support of NA4
  - Tools. This subtask aims at identifying and setting up proper tools to perform the communication plan and other tools necessary to achieve the established goals for the AA cluster. Whenever possible we use the tools made available within NA4

Metrics

- **The set of parameters that could be defined to gauge the progress within AA could be:**
  - Number of AA communities who joined the cluster
  - Number of users who registered the AA VO
  - Number of AA gridified applications
  - Number of submitted jobs
  - Number of shared hardware resources in the AA VO
  - Number of organized training events

Procedures/Policies

- **AA procedures/policies may be set up to:**
  - Get access to a pool of hardware and software resources
  - Ask official support and adoption of already developed new software in terms of scripts or extensions of the Grid M/W
  - Propose a gridified application as pilot application (demonstrator)
  - Ask support in terms of training events
  - Propose new software tools suitable to achieve the cluster goals
- **No particular restrictions are envisaged at present to get access to these services**
- **Proper forms will be prepared and made available on the cluster web site to be used by AA members**

Communication Plan

- **We plan to use the following mechanisms to communicate within the cluster:**
  - Web based communication mechanisms
  - Mailing lists. At present a unique mailing list is enough. More mailing lists (i.e. one for each subtask) could be set up
  - Internet based audio/video conferences
- **Contacts with other tasks of NA4 are very important (support, strategic clusters, coordination)**
- **We plan to set up a software and documentation repository (or use that provided by NA4) for the benefit of each AA member**

Tools

- **The tools that we plan to use in order to foster communication and collaboration in producing and using software in AA cluster are:**
  - A TBD ticketing system (GGUS?)
  - SVN of CVS for joint software development and management
  - A TBD tool for software build management
  - A TBD Conference Management System
  - A TBD mail server to manage mailing lists
  - Joomla as Web Content Management System
  - SkyPE or “Go To Meeting” or others as audio/video conferences

AA Meetings

- **Given the shortage of funds within AA two yearly face to face AA meetings will be organized in conjunction with the yearly EGEE User Forum and with the yearly EGEE Conference**

AA PM Distribution 1/2

N	ID	Cy	Fed.Member	Name	Contacts	i	ii	iii	iv	v
1	INAF	IT	Italy INAF	Istituto Nazionale di Astrofisica	**Claudio Vuerli**, Giuliano Taffoni	40	40	26	25	18
2	IFAE/PIC	ES	SWE IFAE	Port d'Informaciò Cientifica	**Abelardo Moralejo**	-	-	-	-	12
3	IFCA	ES	SWE CSIC	Instituto de Física de Cantabria	**E. MartinezGonzalez**, Jesús Marco	24	36	18 #	18	12
4	SAS	SK	CE II SAS	Slovak Academy of Sciences	**Ladislav Hluchy**	12	12	12	12	12
5	LOFAR RUG	NL	Benelux RUG	Kapteyn Astronomical Institute / RUG	**Edwin A. Valentijn**	24	24	12	12	12
6	FZK	DE	DECH FZK	Forschungszentrum Karlsruhe	**Harald Kornmayer**	48	48	22	21	0
7	UIBK	AT	CE UIBK	University of Innsbruck, Austria	**Michaela Lechner**, Dietmar Kuhn, Sabine Schindler	24	24	12	11	0
8	IPB	YU	SEE IPB	Institute of Physics Belgrade, Serbia	**Aleksandar Belic**	6	6	6	6	0
9	OBSP	FR	France CNRS	Observatoire de Paris	**Marie-Lise Dubernet**	24	12	12	12	0
10	CDS	FR	France	CDS, Observatoire de Strasbourg	Françoise Genova			-	-	-

AA PM Distribution 2/2

N	ID	Cy	Fed. Member	Name	Contacts	i	ii	iii	iv	v
11	OBSG	FR	France	Laboratoire d'Astrophysique de l'Observatoire de Grenoble	Pierre Valiron			-	-	-
12	OBSL	FR	France	CRAL, Observatoire de Lyon	Hervé Wozniak			-	-	-
13	AIP	DE	DECH	Astrophysical Institute Potsdam	**Iliya Nickelt**, Harry Enke, Frank Breitling	24	*	-	-	-
14	ARI	DE	DECH	Astronomisches Rechen-Institut, Heidelberg University	**Rainer Spurzem**	24	*	-	-	-
15	IPHP	CZ	CE CESNET	Institute of Physics, Prague	**Jiri Chudoba**	14	+	-	-	-
16	ESAC	ES	SWE	ESA/ESAC	**Christophe Arviset**	24		^	-	-
17	UCAM	UK	UKI	Institute of Astronomy, Univ. of Cambridge	**Nicholas Walton**, Richard G. McMahon		*	-	-	-
18	ROE	UK	UKI	Royal Observatory, Edinburgh	**Andrew Lawrence**		*	-	-	-
TOTALS						**288**	**202**	**120**	**117**	**66**

Issues/Risks

- **The only big issue/risk for what concerns the AA cluster is the shortage of allocated funds. This aspects could make extremely difficult to achieve the goals of the cluster especially for what concerns**
  - Hiring the necessary man power to develop new software services and to port AA applications in Grid
  - The necessary support for mobility (i.e. allow people to attend the cluster face to face meetings and trainers to organize on-site events)
- **Mitigation:**
  - Use whenever possible tools and services set up in NA4
  - The lack of funds for mobility could be partially mitigated by making intensive use of internet based audio/video conferences like SkyPE, VRVS and GoToMeeting

End of Presentation